Nomenclatorial Notes on West Indian Elaphidiini (Coleoptera: Cerambycidae)

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Abstract. — The name for this tribe is corrected from Elaphidionini to Elaphidiini. A lectotype is designated for Stenocorus nanus Fabricius, and its type locality is restricted to St. Thomas, Virgin Islands. It is moved to the genus Anelaphus Linsley, with Elaphidion thomae Gahan placed as its synonym. A lectotype is designated for Callidium cinereum Olivier, it is removed from synonymy with Anelaphus nanus (Fabricius), and placed as a senior synonym of Anoplium subtropicus Casey as A. cinereus (Olivier). Elaphidion guttiventre Chevrolat is placed in Anelaphus Linsley. Curtomerus subflavus Chemsak is placed in synonymy with Callidium flavus Fabricius as Curtomerus flavus (Fabricius). Elaphidion pseudonomon, n. sp. is described from the Virgin Islands, and nomenclatural confusion of this species and E. glabratum (Fabricius) is discussed. Distribution and literature errors are discussed for all these species, with numerous minor corrections.

This tribe, originally named Elaphidionitae by Thomson (1864:235), has gone under the name Elaphidionini since Bradley (1930:229). Recently it has been pointed out to me by T. J. Spilman and S. A. Fisher that the correct name for a tribe based on the genus name *Elaphidion* is Elaphidiini. The generic name is based on the Greek *elaphos* (deer) in combination with the adjectival ending *idion* (pertaining to). Thus the stem is Elaphidi and the correct tribal name Elaphidiini (=Elaphidionini auct.).

The Elaphidiini are represented in the West Indies by a large number of nominate species, including some of the most commonly collected and widespread beetles in the region, as well as rare endemics. In the course of a study of the Virgin Island Cerambycidae, I have come across several nomenclatural errors involving some of the oldest names in the tribe. It is hoped that these notes will improve the situation, and not add further to the confusion.

Persons identifying West Indian Elaphidiini are cautioned against over-reliance on Gilmour's keys (1968). The keys of de Zayas (1975) (Cuba) and Villiers (1980) (French Antilles) are excellent. A study of the tribe for the entire region is badly needed, as many nominate species have not been placed in the generic framework proposed by Linsley (1963) for North American species, and several unnamed species are represented in collections.

Studies of the types of the species discussed below bring forth a problem. In several instances workers have recorded the sex of a type incorrectly. The sexes are easily distinguished by the shape of the last antennal segment. In the male, it

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is long and narrow, often with a slight notch or annulation (Fig. 14). In the female, the last antennomere is shorter and thicker (sausage-shaped) and lacks the notch (Fig. 1).

In distinguishing species, the male genitalia has been found to be useful. The traditional characters of color, density of vestiture, length of antennal and femoral spines and shape of pronotal calli have been found to be both variable and difficult for users to interpret. Use of the genitalia should be very helpful in decisions of conspecificity of inter-island populations.

Material mentioned in this paper is deposited in collections as designated by the following acronyms: American Museum of Natural History, New York (AMNH); British Museum (Natural History), London (BMNH); Florida State Collection of Arthropods, Gainesville (FSCA); Illinois Natural History Survey, Champaign (INHS); Institut de Recherches Entomologique de la Caraïbe, Guadeloupe (IREC); Julio Micheli (private collection), Ponce, Puerto Rico (JMIC); Michael A. Ivie (private collection), Columbus (MAIC); Muséum National d'Histoire Naturelle, Paris (MNHN); National Museum of Natural History, Washington (NMNH); New York State Museum, Albany (NYSM); Richard S. Miller (private collection), Columbus (RSMC); Ohio State University, Columbus (OSUC); William H. Tyson (private collection), Fresno, California (WHTC); University of California, Berkeley (UCBC); Museu de Zoologia da Universidade de São Paulo, Sao Paulo (USPB); Virgin Islands Ecological Research Station, St. John (VIER); College of the Virgin Islands Cooperative Extension Service, St. Croix (VIES); Zoologisk Museum, Copenhagen (ZMDC). Use of one of these acronyms after a locality in the distribution sections indicates a voucher for that new island record can be found in the indicated collection.

Anelaphus nanus (Fabricius), New Combination

Stenocorus nanus Fabricius, 1792:300. Lectotype male (ZMDC) here designated, labeled: 1. a small green square. 2. a red label reading "type." 3. handwritten label "Ins. Amer.; Smidt; Mus. T. Lund; Stenocorus; nanus F. male (symbol)." 4. red label reading "Lectotype: Stenocorus nanus; Fabricius, 1792 male (symbol); des. M. A. Ivie, 1981." Genitalia removed and placed in vial of glycerin. Lectoallotype and paralectotype (1) females in ZMDC, here designated. Linsley, 1963:104.

Elaphidion nanum: Chevrolat, 1862:261. Wolcott, 1951:337. Chemsak and Linsley, 1982:27.

Anoplium nanum: Cazier and Lacey, 1952:19 (part).

Elaphidion thomae Gahan, 1895:104 (Holotype male, labeled "St. Thomas: Dr. Hornbeck" on green label in Chevrolat's handwriting, in BMNH, examined). Aurivillius, 1912:88. Wolcott, 1951:338. Blackwelder, 1946:565. Leng and Mutchler, 1914:445. NEW SYNONYMY.

Elaphidionoides thomae: Chemsak, 1966:212. Chemsak and Linsley, 1982:25. Anelaphus subtropicus: (not Casey, 1924). Linsley, 1963:104 (part). Gilmour, 1968: 131 (part). Villiers, 1980:289, fig. 56.

Elaphidion guttiventre: (not Chevrolat) Miskimen and Bond, 1970:93.

MALE. Form elongate, subparallel, reddish-brown to dark brown. Eyes deeply emarginate, encircling antennal bases. Dense pubescence confined on head to emarginations of eyes and immediate margins of same. Head with longitudinal

furrow between antennal tubercules. Antennae surpassing elytral apices by 2 to 3 segments, setose; apices of segments 3 through 7 spinose on inside margin and carinate dorsally; segments 8 through 11 laterally compressed; segment 11 longer than 10. Pronotum and prosternum clothed in dense, closely appressed pubescence; laterally with sparse setiferous macropunctations; dorsally with glabrous median vitta; dorso-laterally with hook-shaped glabrous vittae. Femora subclavate, apices dentiform. Procoxal cavities narrowly open behind. Elytra with dense appressed light brown pubescence, rubbed in older specimens into various patterns. Length 8–13 mm.

FEMALE. Like male, but with pronotum less pubescent and heavily punctate. Antenna shorter, with apices of segments 6–8 dentiform externally, segment 10 longer than 11.

Distribution. — Puerto Rico, Vieques, St. Thomas, St. John, St. Croix, Tortola, Virgin Gorda, St-Barthelémy [BMNH], St. Martin.

This species is common at lights throughout the Virgin Islands. It often hides in corners and cracks around lights with its legs and antennae held tightly against the body, resembling a bark chip.

This species (as *E. thomae*) was placed without comment in the genus *Elaphidionoides* Linsley by Chemsak (1966:212). It is here transferred to *Anelaphus* Linsley based on the characters in Linsley's keys (1961:32, 1963:2) and his redescription of the genus (1963:99). This species differs from the description of *Elaphidionoides* in lacking bispinose elytral apices or a spine on the outer angle. Also, in the species of *Elaphidionoides* examined [*incertus* (Newman), *parallelus* (Newman)], the lower lobe of the aedeagus is as wide as, and nearly as long as the upper lobe. In the species of *Anelaphus* studied [*A. inermis* (Newman), *A. nanus* (Fabricius), *A. cinereus* (Olivier) and *A. guttiventre* (Chevrolat) [NEW COMBINATION] the lower lobe is much narrower and shorter than the upper.

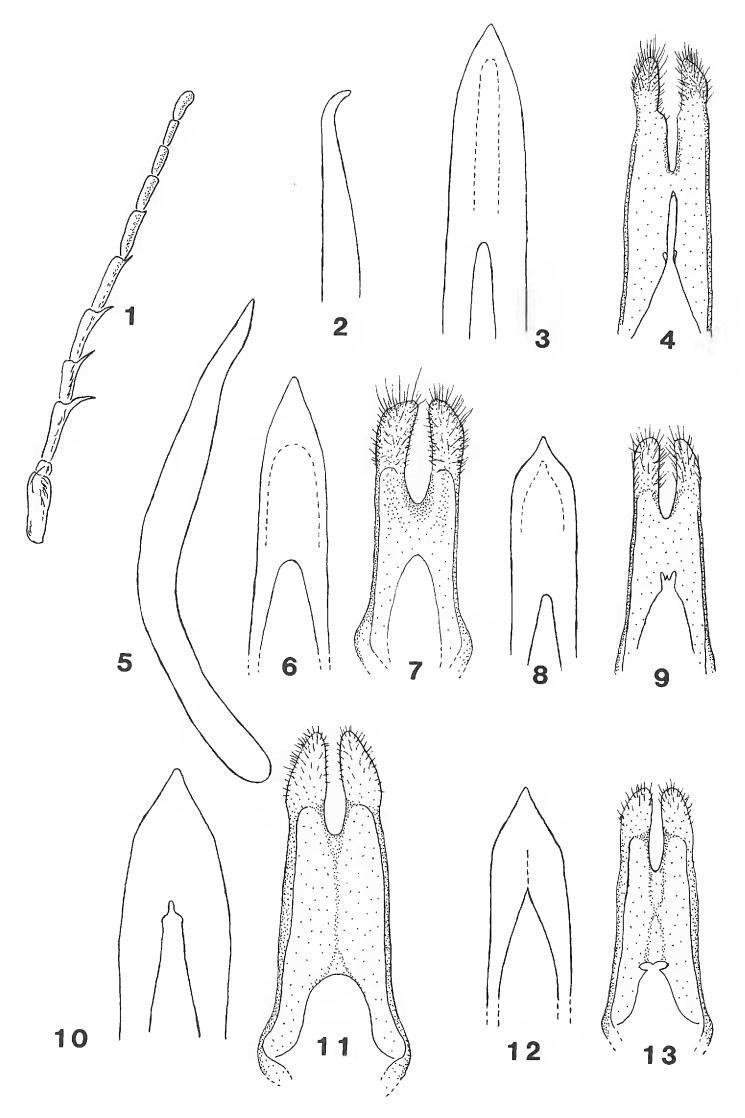
In 1792 Fabricius described *Stenocorus nanus* without a type locality. In 1862, while describing *Elaphidion guttiventre* from Cuba, Chevrolat stated that *guttiventre* was "like *nanum*, whose home is unknown, probably St. Thomas. I received a specimen from Dr. Hornbeck, which was from that part of the Antilles, determined from the type" (translated by Ivie).

In 1895 Gahan described *Elaphidion thomae* from the specimen referred to as *nanum* by Chevrolat. The type of *E. thomae* bears a label "St. Thomas, Dr. Hornbeck" in Chevrolat's handwriting. Gahan ignored Chevrolat's statement that the specimen before him had been compared to the Fabrician type, because he felt another species before him matched Fabricius' description more closely than the Hornbeck specimen.

Subsequent authors followed Gahan's description of *E. nanum* and *E. thomae* until 1963 when Linsley placed *nanum* of Gahan in synonymy with *Anoplium* subtropicus of Casey. When making this synonymy, Linsley stated "Stenocorus nanus Fabricius . . . , judging from the type, represents a different species" (p. 104).

Examination of the type of *nanus* confirms Chevrolat's determination, and the genitalia of both types were examined. Thus, *nanus* of Fabricius should be applied to those specimens currently referred to *thomae* of Gahan, *thomae* being the junior synonym.

Further, though Fabricius gave no locality for nanus, he attributed it to "Dom.



Figures 1–13. 1. Elaphidion pseudonomon, n. sp., female antenna. 2–4. Anelaphus cinereus (Olivier) (Key Largo); 2, aedeagus, lateral view; 3, aedeagus, dorsal view; 4, parameres. 5–7. Anelaphus nanus (Fabricius) (St. Croix); 5, aedeagus, lateral view; 6, aedeagus, dorsal view; 7, parameres. 8, 9.

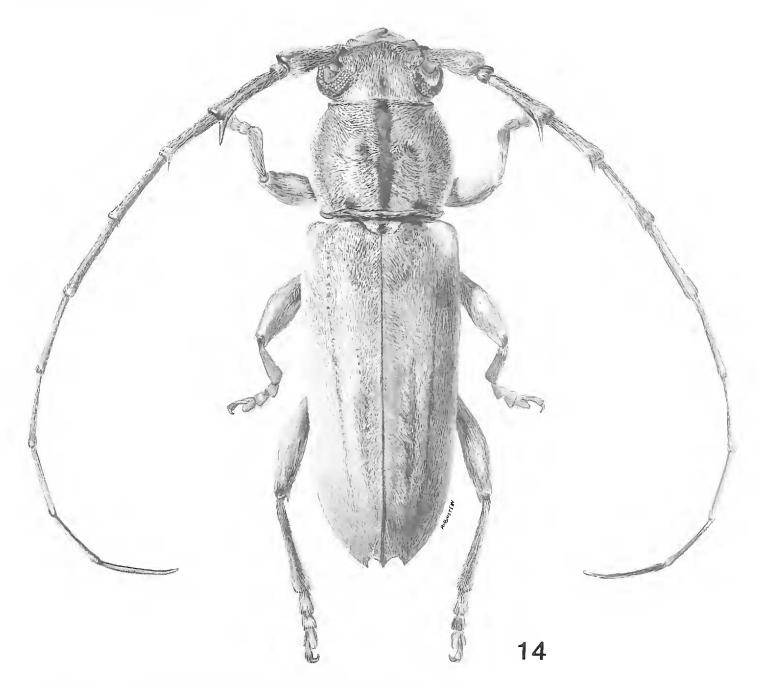


Figure 14. Elaphidion pseudonomon, n. sp.; habitus.

Lund," referring to Niels Tønder Lund, whose collection is rich in material from the former Danish colonies including the U.S. Virgin Islands (formerly the Danish West Indies). Comparison of the type and Virgin Island material show complete agreement of characters, therefore the type locality is hereby restricted to St. Thomas, Virgin Islands.

Recognition of the above synonymy brings forth another problem.

Anelaphus cinereum (Olivier), New Combination, New Status

Callidium cinereum Olivier, 1795:69 (Lectotype here designated in BMNH labeled: "?Type [in red circle]/ ex mus. Ol./ Callidium; cinereum: Ol. St. Dominque/Bowr. Chevr.; 63.47*/ Elaphidion: cinereum Ol. 70. p 69. 96; rufeatus Dejean P. [illegible]: Sto. Domingo ex mus. Ol; h in [scratched out] Cuba d. Roux [on green paper in Chevrolat's handwriting]/ "Callidium"; cinereum; ex mus. Oliv.; Sto. Domingo [in Gahan's hand?]/ [my lectotype label]).

Anelaphus guttiventre (Chevrolat) (Cuba); 8, aedeagus; 9, parameres. 10, 11. Elaphidion glabratum (Fabricius) (St. Croix); 10, aedeagus; 11, parameres. 12, 13. Elaphidion pseudonomon, n. sp. (St. Thomas); 12, aedeagus; 13, parameres.

Elaphidion cinereum: Chevrolat, 1862:261.

Elaphidion nanum: (not Fabricius, 1792). Gahan, 1895:103. Zayas, 1975:95. Duffey, 1969:121, figs. 70–72.

Anoplium nanum: Linsley, 1963:467. Cazier and Lacey, 1952:19, fig. 2.

Anoplium subtropicus Casey, 1924:245. NEW SYNONYMY.

Anelaphus subtropicus: Linsley, 1963:104. Chemsak, 1967:185. Chemsak and Linsley, 1982:25.

For further references see Linsley (1963:104) and Duffey (1960:121).

In the same paper in which he described thomae, Gahan (1895:103) states that before him in his "redescription" of nanum he had what Chevrolat considered to be the type of cinereum Olivier (1795:69, from Sto. Domingo) as well as specimens from Cuba and Haiti. Gahan synonymized cinereum with his nanum, which was in turn synonymized with subtropicus by Linsley, but Linsley (1963: 104) left cinereum (Olivier) as a synonym of nanus of Fabricius, in error. The type of cinereum in the BMNH is indeed this species, and Anelaphus cinereus (Olivier) is therefore the valid name, with both subtropicus Casey and nanum of Gahan as junior synonyms.

All Virgin Island records for *nanus*, *cinereum*, *subtropicus*, *thomae*, and *guttiventre* in their various generic combinations are placed under *Anelaphus nanus* (Fabricius). The fact that several genera have been confused under these names indicates the depth of the problems in the nomenclature of this group. This is the only Virgin Island species of the *Elaphidion* complex of genera that lacks spinose elytral apices, and all records of any name referable to such a species are placed here.

Diagnosis.—A. nanus and guttiventre are easily separated from cinereus if all species are at hand by the difference in color. The elytra of cinereus are light brown with a piceus longitudinal line expanded at base and at middle into broad spots, the latter extending to the suture, which is narrowly piceous. In nanus and guttiventre the elytra are basically unicolorous, pattern being a product of rubbed off setae, though the suture is sometimes (usually in nanus) narrowly darker than the rest of the elytra. More reliable characters to separate the species are: cinereus with the face between the eyes and the pronotal callosities ocelate-punctate, while in nanus and guttiventre the face is simply punctate and the pronotal callosities are impunctate, especially the longitudinal median vitta. In cinereus the apex of the fifth abdominal sternum is apically produced and emarginate on either side, while in nanus and guttiventre it is evenly rounded or obtusely pointed, but not produced or emarginate.

A. guttiventre can be separated from nanus by the presence of a distinctly elevated, rounded longitudinal rib on the elytral disc of guttiventre, the elytral disc being plane in nanus.

The 3 species can further be distinguished by the shape of the aedeagus and parameres. In *cinereus*, the aedeagus has the tip greatly curved in lateral view (Fig. 2), is relatively acute apically, and has the lower lobe very narrow (Fig. 3). The parameres are very deeply cleft below, both apically and basally (Fig. 4). The aedeagus of *nanus* is not curved in lateral view (Fig. 5), is broader at the apex and the lower lobe is relatively wide (Fig. 6), and the parameres are less deeply cleft (Fig. 7). In *guttiventre*, the aedeagus is emarginate on each side of apex, the lower lobe has a similar shape (Fig. 8), and the parameres are as in Figure 9.

Material of *A. nanus* has been examined from Puerto Rico (OSUC, MAIC, NMNH, UCBC), St. Thomas (MAIC), St. John (MAIC), Tortola (NMNH, UCBC), Virgin Gorda, St. Croix (MAIC, NMNH, WHTC), St. Barthélemy (BMNH), St. Martin (MNHN).

Specimens of *cinereus* have been examined from Jamaica (MAIC), Cuba, Hispaniola (FSCA, MAIC), Gt. Exuma and S. Bimini (Bahama Is.) (NYSM, OSUC), and Key Largo (Florida) (OSUC).

The type of guttiventre (BMNH) and a series from Cuba (NMNH) were studied.

Curtomerus flavus (Fabricius)

Callidum flavum Fabricius, 1775:191.

Cylindera flava: Aurivillius, 1912:120.

Curtomerus flavus: Gressitt, 1956:77. Linsley, 1963:5. Villiers, 1980:282.

Curtomerus subflavus Chemsak, 1966:213. NEW SYNONYMY.

For more complete synonymy, see Linsley (1963:5), and Villiers (1980:282, fig. 50).

Distribution. —Florida, S. Bimini (NMNH), Andros (NMNH), New Providence (NMNH), San Salvador (NMNH), Cuba (NMNH), Grand Cayman (NMNH), Jamaica (NMNH), Hispaniola (NMNH), Mona, Puerto Rico (NMNH), St. Martin, Barbuda (NMNH), St. Christopher (NMNH), Guadeloupe (NMNH), Le Désirade, Marie-Galante, Les Saintes (MAIC, IREC), Dominica (NMNH), Martinique, St. Lucia (NMNH, FSCA), St. Vincent (RSMC), Barbados (NMNH), Grenada (FSCA), South and Meso America, Hawaii, Tahiti.

Diagnosis.—The sub-erect pubescence, with each seta arising from a puncture, shining testaceous integument, and unarmed antennae, femora and elytral apices will distinguish this species in the Virgin Islands. The concolorous elytra and simply punctate to irregularly rugose pronotum will distinguish it from other species of *Curtomerus* known from the West Indies.

The characters used by Chemsak to distinguish *subflavus* are size dependent. In a series running the range from smallest to largest in the Virgin Islands, the punctation coarseness of the pronotum increases directly with size. The type of *flavus* (ZMDC) is of the large, coarsely punctured rugose form, and compares fundamentally with the type of *subflavus*.

Elaphidion conspersum Newman

Elaphidion conspersum Newman, 1841:110. Gahan, 1895:101. Blackwelder, 1946: 564. Wolcott, 1951:338. Gilmour, 1968:127. Miskimen and Bond, 1970:93. Villiers, 1979:97, 1980:285, fig. 52.

Elaphidion spinicorne: (not Drury, 1773), non-Jamaican records of authors. Elaphidion excelsum: (not Gahan, 1895). Zayas, 1975:86, plate 11, fig. c.

Distribution. — Crooked Is., Long Is., Gt. Exuma, New Providence (Bahamas), Cuba, Hispaniola, Puerto Rico, St. Thomas, St. John, St. Croix, St. Martin, Guadeloupe, Curação, Bonaire.

Diagnosis. —A large, robust species characterized by antennal segments 3–10 bispinose; bispinose elytral apices; spinose metafemora; punctate to rugose pronotum; and elytral pubescence coalesced into many distinct spots, with the intervening areas having pubescence limited to one seta per puncture.

This species has been frequently confused with *E. spinicorne* Drury from Jamaica. The record of *conspersum* from Jamaica dates to Gahan (1895:101) based on a specimen in Pascoe's collection which Gahan suspected was mislabeled. In the absence of additional Jamaican material, I agree, and have dropped the Jamaica record. The two species are very different in appearance. *E. spinicorne* has the elytra almost entirely covered in dense appressed pubescence with scattered, slightly raised vermiculate glabrous markings, the punctures of which do not bear setae. Also, it is smaller and more slender than *conspersum*, the pronotum is impunctate and completely covered in dense appressed pubescence except for the smooth, glabrous callosities.

E. conspersum is variable, as would be expected for such a wide-ranging species. It breeds in red mangrove, and is probably susceptible to rafting as larvae, thus maintaining genetic contact between populations. The length of the meta- and mesofemoral spines and those of the elytral apices are quite variable both between and within populations, and are of no use in separating the species' various forms into species. I have studied specimens from the Bahamas (FSCA), Hispaniola (both Haiti and the Dominican Republic) (FSCA), and the Virgin Islands (NMNH, VIER, MAIC), as well as the lectotype. Numerous specimens of E. spinicorne have been studied, all from Jamaica (MAIC, FSCA, HAHC, INHS) where it is apparently very common. The occurrence of E. spinicorne elsewhere is uncertain, and other records probably belong to E. conspersum, with the possible exception of the Caymans.

Zayas' record of *E. excelsum* from Cuba refers to *conspersum*, as evidenced by the size he records and the illustration. *Elaphidion excelsum* Gahan is a very different, very large species from Guadeloupe.

Elaphidion glabratum (Fabricius)

Stenocorus glabratus Fabricius, 1775:180.

Elaphidion glabratum: Gahan, 1895:100. Blackwelder, 1946:565. Duffy, 1960: 123. Villiers, 1979:96, 1980:287, fig. 53.

Elaphidion insulare Newman, 1840:27. Gahan, 1895:100.

Elaphidion mite Newman, 1840:27. Ballou, 1913:61.

Elaphidion hummelinicki Gilmour, 1963:84.

Elaphidion cobbeni Gilmour, 1963:81.

Distribution.—Confirmed distribution of glabratum (sensu stricto) is St. Croix, St. Martin, St. Barthelémy, St. Eustatius, Nevis, Antigua (BMNH), Montserrat (BMNH), Guadeloupe. Literature records (Duffy, 1960:123) for St. Christopher, Dominica, and St. Lucia probably belong here.

Diagnosis. — This species can best be recognized by the form of the male genitalia (Figs. 10, 11). Length: males 13–19 mm, females 12–17 mm.

The confusion involving this species is considerable, though the work of Villiers (1979) did much to correct this situation, *Stenocorus glabratus* was described by Fabricius from St. Croix based on two male specimens [ZMDC]. Villiers (1979: 96) designated one of these specimens lectotype, although he recorded it as a female. Newman (1840:27) described *Elaphidion insulare* from Nevis based on a female. *Elaphidion mite* was described for specimens of *glabratum*, which name Newman mistakenly applied to the North American *E. mucronatum*. As early as

1895 Gahan suggested that E. insulare might be a synonym of E. mite (=glabratum) but did not take formal action.

Until Villiers formally synonymized them in 1980, these "species" were distinguished by sexual characters, resulting in the males being called *glabratum* and the females *insulare*. These names came to be applied to the sexes of a common species from the northern Virgin Islands and Puerto Rico, leading Gilmour to describe *hummelinicki* and *cobbeni* in 1964 from the Lesser Antilles. The type of *cobbeni*, recorded as a male, is actually a female. The type of *hummelinicki*, recorded as a female, has not been examined, but the description of the last antennomere clearly indicates it is a male, and the accompanying photograph (Gilmour, 1963, plate II, fig. 3) confirms this. Villiers examined the types of all these species, and while he misinterpreted the sex of the specimens, he correctly synonymized them. However, because the characters used in the pre-1980 literature were based on sexual dimorphism which is uniform throughout related species, pre-Villiers 1980 records for all these species are uncertain. In the Virgin Islands, *glabratum* occurs only on St. Croix, being replaced in the northern Virgin Islands by another species, erroneously recorded under these names (see below).

Elaphidion pseudonomon, New Species

Elaphidion glabratum: (not Fabricius) Gahan, 1895:100 (part). Leng and Mutchler, 1914:445 (part). Blackwelder, 1946:565 (part). Duffey, 1960:123 (part). Chemsak, 1966:212. Gilmour, 1968:124 (part).

Elaphidion insulare: (not Newman) Chemsak, 1966:212. Gilmour, 1968:124.

Description. —MALE. Figure 14. Elongate, subparallel. Reddish brown, densely covered with golden recumbent pubescence. Eyes emarginate, encompassing bases of antennae. Antennae long, seventh antennomere reaching elytral apices, eleventh longer than tenth, 3–5 heavily spined meso-apically, 6 sometimes with a smaller spine, 5–11 carinate externally. Pronotum moderately punctate; with bare, shining, longitudinal callus dividing it from anterior to posterior margins; a pair of less distinct, comma-shaped callosities ring the disk, their visibility depending on the amount of pubescence rubbed off. Scutellum with a distinct bare line. Elytra rubbed into a variety of patterns depending on the age of the specimen, generally with three bare strips running the length of the elytra; elytral apices bispinose, outer spine longer than sutural one. Genitalia as in Figures 12, 13. Length 9.5–16 mm.

FEMALE. Differs from male in having a slightly broader body; larger diameter pronotal punctation; shorter antennae barely surpassing the elytral apices, and the last antennomere being short and broad (Fig. 1). Length 10–17 mm.

Diagnosis.—This species is best separated from the closely related E. glabratum by the form of the male genitalia (Figs. 12, 13). Other characters are useful only if series of both species are available. E. glabratum is a dark chocolate-brown; averages larger; has the pronotal disk less pubescent and more strongly punctate; the median glabrous line wider at middle; and the elytra less pubescent, with larger glabrous areas. All of these secondary characters are individually variable, teneral glabratum being lighter in color, etc. The allopatric distribution is perhaps the safest distinguisher for isolated female specimens in the absence of comparative material of both sexes.

Distribution. — The islands of the Puerto Rican Bank: St. Thomas, St. John, Tortola, Virgin Gorda, Anegada, Puerto Rico.

Biology. —Adults of this species are very common at lights in the northern Virgin Islands. They are easily overlooked as they hold their antennae and legs close to the body and secrete themselves in corners and cracks. Specimens have been reared from an unidentified, small diameter (approx. 5 mm), dead woody vine taken at Salt Pond Bay, St. John on 7 May 1978, emerging on 5 June 1978, and at Perseverance Bay, St. Thomas, on 2 August 1980. In this latter vine was found one adult and one larva. The larva was transferred to artificial diet and pupated 21 May 1981, emerging 5 June 1981. The adult male was of normal size and appearance, although the 10 months to emergence may be an artifact of the artificial diet. Four specimens emerged on 19 September 1980 from a limb of a small dead tree collected at Smith Bay, St. Thomas on 4 August 1980.

Etymology. —Based on the Greek adjective pseudonymos, meaning under a false name, in reference to the nomenclatorial history of the species.

Holotype male, labeled: Virgin Is: St. Thomas: Red Hook: 31 JUL 1980: at uv light/ M. A. Ivie colr. The genitalia have been removed, and are in a glycerin vial on the pin. Deposited in the ZMDC. Allotype female, labeled: Virgin Is.: St. Thomas: Red Hook: 27 JUL 1980/ beaten from tree/ M. A. Ivie Colr. Deposited with Holotype.

Paratypes: Puerto Rico: 3f, 1 m—Roosevelt Roads, A. B. Cochran [intercepted at] San Juan, 4 March 1963, #18392, 637416 [NMNH].

St. Thomas: 1 f—Frenchmans Bay Est., 1 May 1978, M. A. Ivie [RSMC]. 1 f— Red Hook, 1 August 1980, uv light, M. A. Ivie; 1 m—ibid., 16 August 1980; 1 m-ibid., 17 August 1980 [USPB]. 1 m-II-21 1925; 1 f-II-22-1925; 1 f-III-2-1925 [L. B. Woodruff]; 1 m, 1 f?—24-VIII-17; 1 m?—22-X-1917 [AMNH]. 1 f-Eggers [ZMDC]. 1 m, 2 f-Tippmann coll.; 1 f-II 24 1956, W. R. Fyke, on divi divi seed pod, 56-3803; 1 m-31 III 1912. Antillae Ujhelvi, Tippmann coll.; 2 m-24-VIII-17, acc 5632 [NMNH]. 1 m, 1 f-Red Hook, 16-VIII-1980, uv light, M. A. Ivie [IREC]. 1 m—Perseverance Bay, 2 August 1980, ex vine, M. A. Ivie; 1 m—ibid., as larva, reared on artificial diet, emerged 5 June 1981; mating pair-College of the V.I., 1 May 1978, M. A. Ivie; 1-Smith Bay, July 1980, C. A. Jennings; 2 m, 2 f—Smith Bay, 4 August 1980, as larvae, emerged 19 September, M. A. Ivie; 1 m—Frenchmans Bay Est., 750 ft, 9 September 1979, M. A. Ivie; 2 f—ibid., 12 November 1979; 1 m—ibid., 17 November 1979; 2 f—Red Hook, 6 August 1980, uv light, M. A. Ivie; 1 m, 1 f, 1?—ibid., 16 August 1980; 1 m-1 August 1980; 1 m-ibid., 14 August 1980; 1 f-ibid., 18 August 1980; 1 f-ibid., 22 August 1980; 1 f-ibid., 26 July 1980; 1 f-26 July 1980; 1 f-ibid., 30 July 1980; 1 m, 1 f-12 November 1979 [MAIC]. 1 m, 1 f-Red Hook, 17 August 1980, uv light, M. A. Ivie [VIES]. 1 m, 1 f-Red Hook, 25 July 1980, uv light, M. A. Ivie [OSUC].

St. John: 1 m?, 1 f—nr. Lameshur Bay, 7-9-1970, at light. Hanzely: 1 f—nr. Trunk Bay, 20 October 1962, B. Sloane; 1 f—Lind Point, 5 April 1962, H. B. Muller; 1 m—Lameshur Bay, 7-15-1968, R. Mattlin; 2 f—Lameshur Bay, 20 July 1972, A. Gray; 2 m, 1 ?—8-68, A. E. D[ammann] [VIER]. 2 f—Lind Point, 5 April 1962, at light, H. B. Muller; 1 f—ibid., 30 April 1962; 1 f—Mandal, II-30-1958, C. F. Adams [NMNH]. 1 f—Est. Carolina, NW of Coral Bay, 26 May 1982, 250 ft, uv light, W. B. Muchmore [USPB]. 1 f—1-2-92, Meinert [ZMDC]. 1 f—

Est. Carolina, NW of Coral Bay, 250 ft, 3 June 1982, uv light, W. B. Muchmore; 1 f—ibid., 6 June 1982; 1 m—ibid., 18 May 1982; 1 m—ibid., 18 May 1982; 1 m—Lameshur Bay, 6 June 1979, M. J. Canoy; 2 f—Lameshur Bay, VIERS, 15 August 1980, uv light, M. A. Ivie; 1 f—ibid., 18 June 1980, W. B. Muchmore; 1 m—Salt Pond Bay, 7 May, as larva, emerged 5 June 1978, M. A. Ivie; 1 f—Calabash Boom, 14–18 October 1981, at light, W. B. Muchmore [MAIC]. 2 m, 2 f—Est. Carolina, NW of Coral Bay, 250 ft, May–June 1982, uv light, W. B. Muchmore [UCBC]. 1 m—Lameshur Bay, VIERS, 4–5 MAR 1984, uv light, W. B. Muchmore; 1 f—ibid., 8–9 MAR 1984 [JMIC]. 1 m—Lameshur Bay, VIERS, 10–11 MAR 1984, uv light, W. B. Muchmore [WHTC].

Tortola; 1 m, 2 f—Sopers Hole, 5 IV 1958, J. F. G. Clarke; 1 f—Sage Mt., 1000 ft, 17 IV 1956; 1 m—Roadtown, III 14 1941, at light, lot 41-11534 [NMNH]. 1 m?—1-20 August 1958, C. E. Helsley [INHS]. 1 m—18-19 August 1982, R. S. Miller [RSMC].

Virgin Gorda: 1 f—1–30 September 1958, C. E. Helsley [INHS].

Anegada: 1 m—Setting Point, 21–25 March 1983, malaise trap, R. S. Miller [RSMC].

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